

# Tuberculosis Case Finding in a County Jail

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**S**TUDIES suggest that X-raying inmates of county jails is productive case finding at its best (1). Hence a small-film chest X-ray survey at the Hartford (Conn.) County Jail was made in June 1953, all within a few days. A portable 70-mm. PFX unit was set up in a central portion of the jail. All inmates and jail personnel were screened by the local health department, the sheriff and his personnel cooperating.

## Results of Survey

No cases of active disease were found among the jailers. Twenty cases of active tuberculosis, 21 of inactive, and 49 cases of other conditions were revealed among the inmates of the jail.

Active cases were defined as those in which subsequent large films, sputum testing, and other means verified the diagnosis of active tuberculosis and sanatorium care was recommended. With one exception these 20 active cases were newly reported. All were men. Six of the men had minimal tuberculosis, 9 moderate, and 5 far advanced. Together they represent 3 percent of the total number surveyed, 663.

Of the 21 inactive cases, 13 men had minimal tuberculosis, 6 moderate, and 2 far advanced. Four cardiac and 2 tumor cases were among the 49 other findings.

Three men out of 100 jail inmates were

found to have active tuberculosis requiring hospitalization. For comparison the figure for active tuberculosis found in current chest surveys of industrial populations by the Hartford Health Department is 0.15 percent—less than 2 cases per 1,000 individuals filmed. For all persons X-rayed (self, doctor, high school, and industry referral), the rate of active cases of tuberculosis found in the survey clinic for 1953 was 0.35 percent—less than 4 cases per 1,000 persons X-rayed.

## Continuous Survey

Since it appeared that the jail population had an inordinately high prevalence of active tuberculosis at the time of the 1953 survey, it was decided to begin a regular program of X-raying all new jail admissions.

A 15-milliamperere large film unit was furnished by the local tuberculosis society. In February 1954, X-rays were taken weekly on most of the prisoners admitted during the previous week. An average of 30 films were taken 1 day per week thereafter. The results of this continuous survey of jail inmates were comparable to those of the 1953 survey. To date 1,001 prisoners have been screened by X-ray within one week of admission to jail. Twenty-nine have been found to have active tuberculosis. Some of these were new cases; some were showing an increase of disease previously known but considered arrested; and others had been lost to followup. Three additional cases of active tuberculosis found in jail admissions during this time had been known but lost to the health de-

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**Active tuberculosis cases found among 1,001  
X-rayed jail inmates, February–September  
1954**

Admission status	Cases		Stage of disease		
	Number	Percent	Minimal	Moderate	Far advanced
New	17	1.7	3	8	6
Known:					
Reactivated	2	.2	1	1	0
Active, but lost to followup	10	1.0	1	6	3
Total	29	2.9	5	15	9

partment. So here again we found approximately 3 cases of active disease per 100 persons filmed.

These results have convinced us that in this particular urban area the largest reservoir of active cases of tuberculosis is to be found in the group of minor offenders committed each day to the county jail. Although the jail also houses prisoners bound over for trial in higher courts, with one exception the cases of active tuberculosis have been found among the short-sentenced group.

The sheriff estimates that 85 percent of the inmates of Hartford County jail are there because of offenses associated with alcoholism. It has been possible through the police court judges to arrange for speedy transfer of these prisoners to State sanatoriums. This would not have been possible had their offenses been of a more serious nature as there are no locked wards in these institutions. This raises the question of whether these men can be kept under treatment long enough to effect a cure.

This experience emphasizes the changing pattern of tuberculosis spread. With modern high levels of personal and community sanitation lived up to and with good nutrition, the epidemic spread of tuberculosis is unlikely.

#### Followup

A 15-month followup of the 20 cases of active tuberculosis found in the June 1953 survey shows:

3 remained in sanatoriums until case was arrested.

13 are still in sanatoriums.

3 are out from under sanatorium care against medical advice.

1 is lost to followup by moving out of the State.

Of all these persons with active tuberculosis discovered in the Hartford County jail, 5 left the sanatorium against advice once during this 15-month period. Two left twice, and 2 left more than twice. One of these was rehospitalized 4 times in this period of little more than a year. Of the 19 cases found and accounted for, all have averaged more than 8 months of sanatorium treatment.

In these figures is buried a large amount of work—investigation to find the patient after his signout; discussion to persuade him to reenter the hospital; and transfer, discharge, and re-admission notes made by the sanatorium authorities. That such effort is worth while appears in the combined figures of those arrested or still under treatment—16 of the 19 original cases followed.

#### Summary

Through chest X-rays taken on all inmates of the Hartford (Conn.) County Jail in June 1953, 20 cases of active tuberculosis were discovered, a case-finding rate of 3 per 100. Weekly X-raying of newly admitted prisoners from February 1954 through September 1954 brought to light 29 additional cases of active tuberculosis. A 15-month followup report on 19 of the 20 original cases showed that at the end of the period all but 3 were under sanatorium care or had been discharged as arrested cases. It is suggested that, in spite of present high standards of community health, the county jails remain an important reservoir of active tuberculosis.

#### REFERENCE

- (1) Northrop, C.: The practical management of the recalcitrant tuberculosis patient. Pub. Health Rep. 67: 894–898. Sept. 1952.